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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,092	08/20/2001	Juergen Sauler	1737	6638

7590 06/26/2003

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[REDACTED] EXAMINER

HOANG, JOHNNY H

ART UNIT	PAPER NUMBER
3747	8

DATE MAILED: 06/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/933,092	SAULER ET AL.
	Examiner	Art Unit
	Johnny H. Hoang	3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 August 2001.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-16 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 August 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>7,9</u> . | 6) <input type="checkbox"/> Other: _____ . |

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DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The prior foreign application with serial # 100 43 501.7 filed on September 01, 2000 is not appeared in the declaration (see the Declaration on page 2, filed on 09/20/2001). The Applicants are required to add the prior foreign application with serial # 100 43 501.7 in the declaration or cancel that prior foreign application if the priority is not claimed.

Claim Rejections - 35 USC § 112

3. Claim 1 is rejected under 35 U.S.C. 112, sixth paragraph.

The word "means" is preceded by the word(s) "of" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means", it is impossible to determine the equivalents of the element, as required by 35 U.S.C 112, sixth paragraph. See *Ex parte Klumb*, 159USPQ 694 (Bb. App. 1967)

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Takasu et al (US 5,101,790).

The reference of Takasu et al discloses in the knock control system for engine which including: an apparatus and method of detecting knock in an internal combustion engine by means of at least one knock sensor (1) that generates a knock sensor signal (see abstract, col. 3, lines 4-22), said method comprising the steps of:

a) measuring a signal strength of said knock sensor signal during operation of said internal combustion engine (col. 3, lines 23-29; and col. 4, lines 10-33);

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- b) determining a reference level for said knock sensor signal, said reference level varying according to a noise level or sound level of the internal combustion engine (see Figure 7, col. 4, line 49 through col. 5, line 24);
- c) limiting an increase in the reference level in a predetermined manner considering at least one of an allowed reference level range and a gradient that is a measure of an amount of reference level change (as above discussions, col. 4, lines 43 through col. 6, line 17); and
- d) establishing whether or not knock is occurring by comparing said signal strength obtain during the measuring of step a) with said reference level that is limited according to step c) (as above discussions).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tasaku et al in view of Kukubo et al (US 6,520,149 B2).

The reference of Tasaku et al discloses as above rejected claims except the internal combustion engine has a plurality of cylinders.

The reference of Kukubo et al teaches the knock control apparatus and method for engines which disclosing the internal combustion engine has a plurality of cylinders (col. 2, lines 27-35; col. 3, lines 1-9; and col. 3, lines 28-33).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of detecting knock in an internal combustion engine of Takasu et al which including the plurality of cylinders as taught by Kukubo et al, so as to have utilized the internal combustion engine would be operating with the plurality cylinders.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The copies of U.S Patent are provided.

Frankowski et al (US 6,456,927 B1), Torno et al (US 6,311,671 B1),
Sakakibara et al (US 4,711,213).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny H. Hoang whose telephone number is (703) 308-2782. The examiner can normally be reached on Monday - Thursday (7:00Am-5: 30Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (703) 308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7766 for regular communications and (703) 308-7766 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

Johnny H. Hoang
June 19, 2003

Hieu T. Vo 26
Hieu T. Vo
Primary Examiner
Art Unit 3747